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A study was made to see if an educational program on the safe and proper use of pesticides would increase the opinion leadership activities of pesticide dealers and the amount of quality of information they conveyed to their customers and other dealers. The dealers selected came from eight rural counties and two urban communities in Nebraska; they were divided into an experimental and a control group for each area. Educational programs provided during a 12-month period included workshops, classes, and conferences as well as bulletins, brochures, and radio and television programs. The dealers were interviewed before and after the program. Data gathered indicated that participation in pesticide education programs did not appear to be related to increase in opinion leadership activities; however, the scale used did not measure actual effects of the activities. Nominations of the opinion leaders by their customers, who mentioned them as sources of information, seemed to confirm the opinion leadership scale. (nl)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

Participation in Pesticide Education Programs and Changes in Opinion Leadership Activities[1]

by

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The Problem

The United States Department of Agriculture has become increasingly concerned about people's attitudes towards chemical pesticides. This interest is attributed on the one hand to a certain segment of the population who favor sharp curtailment of pesticide use because of numerous personal injuries and on the other hand, agricultural scientists, food producers, and processors who believe in the importance and need of agricultural chemicals for efficient, wholesome food production.

In an attempt to cut down on these injuries and to curtail the loss of valuable crops, animals and shrubbery, agricultural extension services have instituted educational programs designed to increase knowledge of the proper and safe use of chemical pesticides. These programs have utilized conferences, workshops, clinics, radio and television programs, as well as an increase in the amount of printed materials sent to dealers of chemical pesticides. The primary objective of all these activities has been to create in all citizens an awareness of the benefits derived from the proper use of chemical pesticides.

An ancillary objective of these activities has been an attempt to increase the dissemination of information about the proper and safe application of pesticides by these dealers who stock and handle these products. Dealers have been viewed as maintaining a strategically important position with respect to correct use of pesticides since they are individuals with whom consumers come in contact on a more or less regular basis. They have an excellent opportunity to influence and to provide correct practices in handling, storing and applying pesticides.

The last objective raises two questions. First, "What factors are related to different levels of opinion leadership activities engaged in by pesticide dealers?" Secondly, "Can educational programs facilitate changes in this level?" The second question assumes an agreement for the need to change the dealers' behavior regarding the dissemination of information about the proper use of chemical pesticides. The question also assumes that by offering educational programs and by using more personal and impersonal contacts with the dealers they will then gain more knowledge about these products and develop a greater responsibility for providing appropriate information to their customers.

Definition of Opinion Leadership

For the purposes of this research, opinion leaders were defined as pesticide dealers who designated themselves or who were designated by others as conveying information to their customers and other dealers about the proper and safe use of chemical pesticides. Classification as an opinion leader was based on each of the respondent's answers to a modification of the scale developed by Katz and Lazarsfeld (1955). Appendix, Table 1.

Previous Research

Two traditions of research on opinion leadership are helpful in approaching this problem. One tradition is exemplified by the "two-step" flow hypothesis which states that influence stems from the mass media and reaches certain individuals who then in turn pass on what they read and hear to their everyday contacts with whom they are influential (Katz and Lazarsfeld, 1955). The other tradition associated with the term "diffusion of innovation" has been concerned with factors determining acceptance of new practices by individuals linked to specific channels of communication to a social structure and to a given system of values (Rogers, 1962). Implicit in these investigations of the communication process is that opinion leaders help influence opinion formation, adoption behavior, participation in different activities, and other types of behavior.

Early research on opinion leadership focused on the central theme that radio, television, magazines and newspapers did something to people (Katz, 1963). These various media were felt to be so influential that the people who were continually exposed to their messages presumably were helpless in controlling their own behavior.

Subsequent investigations, however, revealed that the impersonal media were not as powerful as first thought in bringing about individual change. Social scientists then posed the question, "Was there a certain individual who had more influence than others in changing behavior?" Concern shifted from impersonal sources to the individual who entered into the flow of communication, and the evidence gained from the investigations did indeed find an affirmative answer to the question. The results clearly demonstrated that there are persons who are considered to be more influential than others and these persons used both mediated and interpersonal communications.

While early investigations showed that persons were influenced, it was not until the Menzel and Katz (1957) investigation appeared that a direct link revealed the real significance of an opinion leader's influence on the changed behavior of the non-influential.

Numerous diffusion studies which have been reported by Rogers (1962) examined differences in opinion leaders and non-opinion leaders. Rogers points out that the results of these investigations suggest a multi-step flow where opinion leaders influence their followers.

To date, however, only one study (Booth, 1966) discussed the impact of personal influence and participation in adult education programs. The findings have shown the importance of face-to-face contacts in decisions by individuals to participate in an educational conference. Yet, no research had investigated the effects of an educational program designed to increase the opinion leadership activities of a select group of people.

The proposed study, therefore, attempted to determine if changes in opinion leadership could take place as a result of participation in an educational program. Such a study seemed to have practical significance for those in the field of adult education in that adult educators often attempt to enlarge their programs by first attracting the key influentials or by working through these people who would in turn influence their personal contacts.

Specifically, the objectives of the research project were:

1. To ascertain the extent to which changes in the frequency of opinion leadership activities took place among pesticide dealers as a result of a program planned to have this effect.

2. To determine the types and changes of information which were disseminated between the non-influentials and their contacts.

3. To determine if educational programs accounted for increases in opinion leadership activities.
   a. To determine if the non-opinion leader could be encouraged to become an opinion leader.
   b. To determine if those who were nominal opinion leaders could be made to serve as more active opinion leaders.

The Rationale

At various times opinion leaders have been called "key communicators", "informal leaders","gatekeepers", and "influentials". Regardless of the name given to them, they are persons within a social system who designate themselves or are designated by others as individuals who can change the attitudes or behavior of another person through personal contacts. Their influence, according to Rogers (1962),moves from themselves to other opinion leaders who then influence their followers. In addition, opinion leadership can differ from one issue to another. For example, an individual may be influential concerning the voting behavior of one of his personal contacts but his influence may have considerably less impact when a decision needs to be made by the same person in deciding to participate in an educational program, adopt a new technique, or join a voluntary association.

The characteristics of the opinion leaders, however, are generally the same regardless of the issue being examined. In most cases, they (1) participate in more activities than their followers; (2) are more innovative than their followers; (3) have more impersonal and cosmopolitan sources of information than their followers; and (4) have a higher social class than their followers.

These characteristics suggested a rationale and a hypothesis which took into account changes that might have occurred in the different levels of opinion leadership. It was thought that participation in a pertinent educational program might have been related to variations in the amount of opinion leadership behavior engaged in by pesticide dealers.

Participation in a Related Educational Program. The Pesticide Education Program in Nebraska was undertaken as an informational and educational program. Its objectives had great scope and diversity. They were stated in terms of service to a wide variety of clientele groups and in the form of (1) increased knowledge and understanding of the pesticide problem; (2) acquisition of needed specialized knowledge, and information, and skills resulting in (3) appropriate action in the safe and proper use of pesticides.

Throughout the duration of the program efforts were made by pesticide specialists to arrange class sessions, workshops, and conferences on the safe and proper use of pesticides. The main criterion for these programs was that they represent some of the major and concentrated efforts to increase the knowledge of dealers regarding safe and proper use of pesticides.

In addition to these conferences and workshops undertaken throughout the state, an effort was made to provide a larger and more diversified informational program. Agricultural Extension Service personnel disseminated more brochures and bulletins and arranged more radio and television programs regarding pesticide usage than they had in the previous year.

This sustained educational effort to increase knowledge and change behavior may have served to increase the pesticide dealers' activities in providing consumers with relevant and necessary information about pesticide usage. If the programs achieved one of the objectives for which they were organized then the dealer who was involved in the educative experience might no longer be content to listen to others and to rely on their advice and opinions but might both feel encouraged and compelled to pass on information to those in the same occupation and to prospective consumers of pesticide products. Thus, it was hypothesized that:

> The more a dealer participated in an educative activity the more often he engaged in opinion leadership activities in the area covered by the educational program.

Definition of Opinion Leadership

For the purposes of this research, opinion leaders were defined as pesticide dealers who designated themselves or who were designated by others as conveying information to their customers and other dealers about the proper and safe use of chemical pesticides. Classification as an opinion leader was based on each of the respondent's answers to a modification of the scale developed by Katz and Lazarsfeld (1955). Appendix, Table 1.

Previous Research

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Early research on opinion leadership focused on the central theme that radio, television, magazines and newspapers did something to people (Katz, 1963). These various media were felt to be so influential that the people who were continually exposed to their messages presumably were helpless in controlling their own behavior.

Subsequent investigations, however, revealed that the impersonal media were not as powerful as first thought in bringing about individual change. Social scientists then posed the question, "Was there a certain individual who had more influence than others in changing behavior?" Concern shifted from impersonal sources to the individual who entered into the flow of communication, and the evidence gained from the investigations did indeed find an affirmative answer to the question. The results clearly demonstrated that there are persons who are considered to be more influential than others and these persons used both mediated and interpersonal communications.

While early investigations showed that persons were influenced, it was not until the Menzel and Katz (1957) investigation appeared that a direct link revealed the real significance of an opinion leader's influence on the changed behavior of the non-influential.

The characteristics of the opinion leaders, however, are generally the same regardless of the issue being examined. In most cases, they (1) participate in more activities than their followers; (2) are more innovative than their followers; (3) have more impersonal and cosmopolitan sources of information than their followers; and (4) have a higher social class than their followers.

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This sustained educational effort to increase knowledge and change behavior may have served to increase the pesticide dealers' activities in providing consumers with relevant and necessary information about pesticide usage. If the programs achieved one of the objectives for which they were organized then the dealer who was involved in the educative experience might no longer be content to listen to others and to rely on their advice and opinions but might both feel encouraged and compelled to pass on information to those in the same occupation and to prospective consumers of pesticide products. Thus, it was hypothesized that:

The more a dealer participated in an educative activity the more often he engaged in opinion leadership activities in the area covered by the educational program.

They were included in the experiment design to determine if the earlier interview prompted the original sixty dealers to give answers sympathetic, or perhaps hostile, to the Department of Agriculture. It was, therefore, a way which permitted the investigator to sort out changes in reported opinion leadership activities which were not a result of the specific educational program.

Dealers were assigned a value of three for each of the following answers: (1) if they informed their customers about factual pesticide information; (2) if they did considerable talking when discussing pesticides; (3) if they were asked for their opinions concerning pesticides by their customers; (4) if they were more likely to be asked for their opinions by other dealers. A value of two was assigned for each response if the dealers suggested their conversations with either customers or dealers were mutual exchanges of information; and a single point was allocated to those responses where the dealer reported having asked for others' opinions about pesticide chemicals.

A normal distribution of scores was not obtained, nevertheless, these scores yielded categories with a fairly comparable number of dealers within each classification.

The respondents' 1967 scores were later compared with their 1966 scores. The difference between these two were coded according to the following scheme: (1) increase in opinion leadership activities; (2) decrease in opinion leadership activities; (3) no change in opinion leadership activities.

Another item was added in the second interview which attempted to discriminate even further the direction of change in opinion leadership which might have occurred during the twelve months following the first contact with the dealers. All the respondents were asked to report whether they thought there was any change in the number of times they discussed the proper and safe use of chemical pesticides. If the respondent suggested there had been, then the interviewers probed for specific details or reasons for this change.

Participation in Adult Education Programs

The extent of the respondents' participation in adult education programs which were introduced to influence opinion leadership behavior was measured in two ways. The first measure included the number of times in which dealers engaged in educative activities such as workshops, clinics, conferences, or special meetings arranged specifically for dealers by the Agricultural Extension Service. Dealers were classified according to the number of participations in these activities. A comparison was then made with their responses to the same questions asked of them during 1966. Those dealers who reported more exposure were categorized as participants whereas those dealers who reported less participation were categorized as non-participants.

Method

Population for the Study

The population for the present study came from two areas of Nebraska. The first area was represented by those dealers whose businesses were located in eight predominately rural counties. The respondents from four counties were selected to serve as the control group while those in the remaining four counties were used as the experimental group. In addition to these distributers from the rural areas, pesticide dealers from two urban communities constituted the second area and served as the urban experimental and control groups.

After the initial contact with these men in January 1966, special educational programs were to be provided for both the rural and urban experimental groups during a twelve-month period preceding the second interview. The use of the control group provided the investigator an opportunity to discover the effects of the educational program regarding changes in opinion leadership activities and the types of information which the dealers provided for their pesticide customers.

These particular counties and cities where the educational programs were conducted were selected for two reasons. First, the population of potential consumers of pesticide products was considered to be representative of the state. Second, these same counties and cities had been used as experimental and control groups in previous investigations conducted by the University of Nebraska Agricultural Extension Service.

The dealers within each geographical area were selected from the total population of the pesticide dealers and were placed randomly into two groups. Sixty dealers were contacted and interviewed during January 1966.

Initially, each dealer was asked to estimate the amount of his pesticide chemical sales in relation to the total volume of retail sales before the interviewer requested any information concerning the dealer's opinion leadership activities. If the sales volume was low, the interviewers considered terminating the meeting under three conditions: (1) if the dealer was unable to provide adequate information about his sources of pesticide information; (2) if the dealer could not recall the different types of information which he provided to his customers; or (3) if the dealer was unable to provide sufficient information about the personal characteristics of his customers.

Approximately a year later during February and March 1967, these same dealers were questioned again about the changes concerning their opinion leadership activities that had occurred since the first interview. Furthermore, sixty-two new dealers were contacted for the first time in 1967 in order to control for the effect of the interview schedule.

They were included in the experiment design to determine if the earlier interview prompted the original sixty dealers to give answers sympathetic, or perhaps hostile, to the Department of Agriculture. It was, therefore, a way which permitted the investigator to sort out changes in reported opinion leadership activities which were not a result of the specific educational program.

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Results

Some concern was expressed regarding the changes in opinion leadership scores which were not a direct result of the educational program. Improper administration of the interview schedule, dealers recalling specific questions used a year earlier, and dealers giving the most socially desirable responses might have been, for example, sources of such change. Thus, eleven new dealers from the two cities and fifty-one new dealers from the rural counties were contacted and their responses were compared with those of the reinterviewed dealers to ascertain what effect being contacted twice had on the latter groups' answers.

Table I

Comparison of 1966-1967 Dealers' Opinion Leadership Scores With the Scores of the Dealers Interviewed for the First Time

Opinion Leadership Activities	Repeat Dealers	New Dealers
High (Score of Twelve)	14	12
Average (Score of Eleven-Ten)	22	22
Low (Score of Nine-Four)	24	28
	N = 60	N = 62

The relationship between the distribution shown in Table I and the opinion leadership scores was tested by Chi square technique (Siegle, 1956). A value of .434, with two degrees of freedom, was obtained. Thus, the observed distribution would tend to occur fifty per cent of the time if chance alone was operating. Based on chi square, no evidence appeared which suggested that the dealers came from different populations. This distribution and the statistical test led the investigator to accept the conclusion that the sixty respondents who were reinterviewed did not contaminate the analysis by giving answers apparently advantageous from their own personal viewpoint or answers which would reflect favorably on the efforts of the Agricultural Extension Service.

Changes in Opinion Leadership Scores and Amount of Participation in Pesticide Education Programs

Before proceeding to the test of this hypothesis, however, the data were examined to determine if actual changes had occurred in the sixty respondents' opinion leadership scores.

In 1966, the scores for the sixty pesticide chemical dealers ranged from a low of five to a high of twelve. Twenty-two per cent (13 dealers) earned a score of less than nine while thirty-five per cent (21 dealers) obtained a score of ten and eleven. The remaining forty-three per cent (26 dealers) received the ceiling score of twelve.

A year later the same four questions were used again in order to determine the dealers' placement on the opinion leadership activities scale. This time, thirty-nine per cent (24 dealers) scored from four to nine; thirty-seven per cent (22 dealers) obtained scores of ten and eleven; and the remaining twenty-four per cent (14 dealers) received the highest possible score. Chi square was calculated to test the significance of observed difference between the changes in the 1966 and 1967 scores. It yielded a value of 6.88, significant at the .05 level. While shifts in opinion leadership activities did, in fact, occur from 1966 to 1967 the changes which took place were not in the anticipated direction.

Amount of Participation in Occupationally - Oriented Programs and Changes in Opinion Leadership Activities. The hypothesis predicted that an increased attendance at occupationally related educational programs was correlated with an increase in opinion leadership activities. Three measures to test the hypothesis were used: (1) participation versus no participation during the year preceding the second interview; (2) the number of times that the dealer had participated in programs; and (3) changes during the past year in educative activities.

Tables 2, 3, and 4 about here.

A Fisher Exact Probability Test and Chi Square were used to determine the significance of the observed difference between dealer participation and non-participation and opinion leadership changes by dealers in both the counties and cities. The analysis revealed no statistically significant difference in the distribution of the respondents' participation and either increases or decreases which had taken place in their personal influence.

Examination of data indicated that participation in pesticide education programs did not appear to be related to changes in opinion leadership activities among the sixty dealers in any of the three measures used to test the hypothesis. Opinion leadership simply was unrelated to the level of dealer participation in educational activities which, presumably, should increase such leadership.

Thus, the educational programs appeared to be unrelated to the behavior they were intended to influence and the hypothesis was rejected. On the basis of the responses provided by the sixty dealers who were interviewed during the spring of 1966 and again in 1967, participation in job-related programs suggests, if anything, a tendency to decrease opinion leadership activities, although it is doubtful if any such casual inference is justified at this time.

Discussion

The findings which have been reported leave adult education agencies, in this case the Agricultural Extension Service, with a two-horned dilemma. In the first instance, these educational programs designed to produce changes among pesticide dealers in their opinion leadership activities failed to do so, insofar as the measure used in this study would indicate. The second horn of the dilemma appears when the data indicated some tendency towards a decline in the amount of opinion leadership over the one-year period both among the rural and urban dealers who had access to these educational programs.

It seemed appropriate to try to change the level of "opinion leadership" and to refer to dealers' activities as opinion leadership since they were strategically located within a network where they stocked, sold, received, and passed on information about the proper and safe uses of pesticide products. They had a direct contact, not only with chemical manufacturers, but also with other distributors, the Agricultural Extension Service and with the ultimate consumer. Thus, it appeared promising to focus on them as a means for increasing consumer knowledge and safe practices in the use of chemical pesticides.

It may be worthwhile at this point to recall that there is a distinction between opinion leadership behavior and opinion leadership in the sense of actual effects upon others. The four items in the Opinion Leadership Scale ask the individual how much opinion leadership behavior he engages in. They do not ask what effect his behavior has had. In other words, there is no measure of opinion leadership as an accomplished fact. Yet, it is possible that some sort of change in opinion leadership actually took place which does not show up in these questions. Take, for example the second question in the scale which asks what part the dealer plays in his discussion with consumers about proper pesticide uses. Does the dealer mainly listen, do considerable talking, or is it a mutual exchange of information? It is possible that a dealer still tends "to have a mutual exchange of information" with his customers while he may be, in fact, transmitting more information in the same amount of time. Furthermore, a larger proportion of this information which is being passed on to the customers may have come from the educational program. While the import of this may very well be that not much reliance can be placed on the validity of the measurement of the dependent variable, nevertheless, there still remains the fact that the majority of the self-designated leaders were also nominated to a greater extent than the non-leaders by customers who mentioned them as sources of information. More than half of the opinion leaders among the dealers were mentioned by their customers, and more often than the non-leaders. Therefore, there is a confirmation of the opinion leadership scale by the consumers' nominations.

The design may be at some fault since it would be improper to assume that the objective of the educational program was to change the volume of interaction between the dealers and consumers from, let us say, a fifty-fifty ratio to an eighty-twenty ratio. Rather, it was to feed more accurate information through the dealers to the consumers.

To say that at the end of a year there is still a fifty-fifty ratio between dealers and consumers in their interaction does not necessarily mean that there has not been any qualitative change in the content of information passed on to the consumer. Consequently, opinion leadership activity in this sense may have been measured in such a way as to conceal the effects that were actually present. Likewise, the follow-up study conducted a year after the initial interview might have been more anpropriately conducted two or three years later.

The possibility exists that some one item within the scale may lend some support to the hypothesis while the other three do not. To test this completely would involve an analysis that would be approximately four times larger than the size of this one. It is possible that this analysis is worthwhile doing.

Appendix

Opinion Leadership

The data-gathering instrument of this study includes items developed on the basis of the rationale of the research. The opinion leadership scale is patterned after the Katz-Lazarsfeld study of personal influence. The respondent's opinion leadership score will be based on the following questions:

1. Which of the following seems to happen more often as far as factual information about pesticides is concerned?

   a. You inform your customers.
   b. Usually it is a mutual information exchange.
   c. They inform you.

2. When you and your customers discuss pesticides, what part in these discussions do you play?

   a. You do considerable talking.
   b. It is usually an equal give-and-take discussion.
   c. Mainly listen.

3. Thinking back to your last discussion about pesticides with a customer,

   a. Were you mainly asked for your opinion?
   b. Was it a mutual exchange of opinion?
   c. You asked for his opinion?

4. Compared with the other pesticide dealers you see most often, are you more or less likely than any of them to be asked for information or advice about pesticides?

   a. More likely
   b. About the same likelihood
   c. Less Likely

Table I

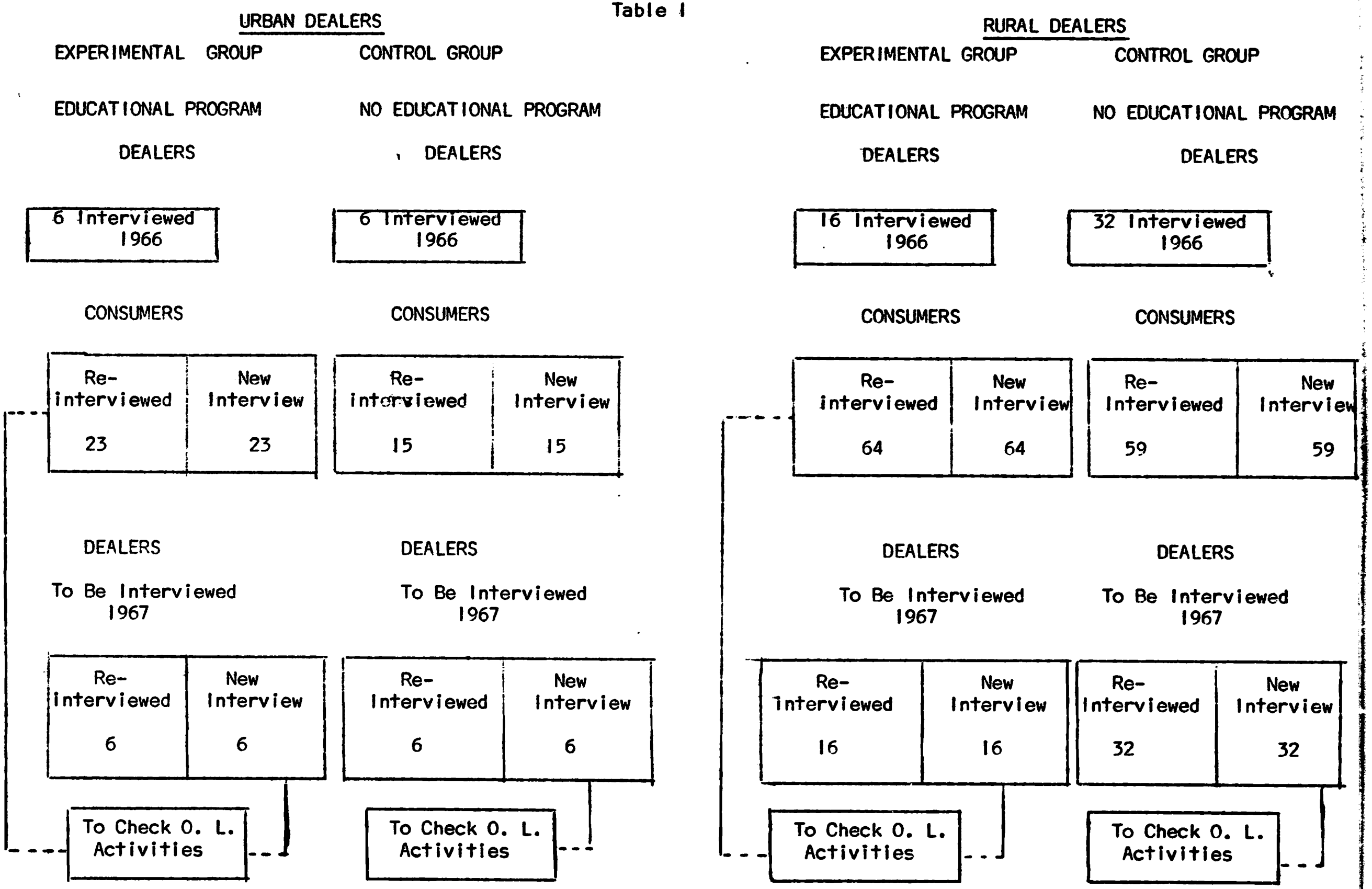
URBAN DEALERS
EXPERIMENTAL GROUP
EDUCATIONAL PROGRAM
DEALERS
6 Interviewed 1966
CONSUMERS
Re-interviewed 23
New Interview 23
DEALERS
To Be Interviewed 1967
Re-interviewed 6
New Interview 6
To Check O. L. Activities
CONTROL GROUP
NO EDUCATIONAL PROGRAM
DEALERS
6 Interviewed 1966
CONSUMERS
Re-interviewed 15
New Interview 15
DEALERS
To Be Interviewed 1967
Re-Interviewed 6
New Interview 6
To Check O. L. Activities
RURAL DEALERS
EXPERIMENTAL GROUP
EDUCATIONAL PROGRAM
DEALERS
16 Interviewed 1966
CONSUMERS
Re-interviewed 64
New Interview 64
DEALERS
To Be Interviewed 1967
Re-interviewed 16
New Interview 16
To Check O. L. Activities
CONTROL GROUP
NO EDUCATIONAL PROGRAM
DEALERS
32 Interviewed 1966
CONSUMERS
Re-Interviewed 59
New Interview 59
DEALERS
To Be Interviewed 1967
Re-Interviewed 32
New Interview 32
To Check O. L. Activities

Table 2

Participation by County Dealers in Pesticide Education Programs and Changes in the Opinion Leadership Scores

Experimental County Dealers

Participation in Pesticide Education Programs	Increase		No Change		Decrease	
	1966	1967	1966	1967	1966	1967
Participation	2	2	3	3	8	9
No Participation	0	0	0	0	3	2

N = 16

Control County Dealers

Participation in Pesticide Education Programs	Increase		No Change		Decrease	
	1966	1967	1966	1967	1966	1967
Participation	8	9	6	4	9	8
No Participation	2	1	4	6	3	4

N = 32

Table 3

Participation by Urban Dealers in Pesticide Education Programs and Changes in Opinion Leadership Scores

Experimental City Dealers

Participation in Pesticide Education Programs	Increase		No Change		Decrease	
	1966	1967	1966	1967	1966	1967
Participation	1	0	3	3	1	1
No Participation	0	1	0	0	1	1

N = 6

Control City Dealers

Participation in Pesticide Education Programs	Increase		No Change		Decrease	
	1966	1967	1966	1967	1966	1967
Participation	1	1	1	1	3	1
No Participation	0	0	0	0	1	3

N = 6

Table 4

Amount of Participation in Pesticide Education Programs by Rural Dealers and Changes in Opinion Leadership Scores

Experimental County Dealers

Amount of Participation	Increase	No Change	Decrease
None	0	0	2
At Least Three	2	3	6
Four or More	0	0	3

N = 16

Control County Dealers

Amount of Participation	Increase	No Change	Decrease
None	1	6	4
At Least Three	6	0	4
Four or More	3	4	4

N = 32

Table 5

Amount of Participation in Pesticide Education Programs by Urban Dealers and Changes in Opinion Leadership Scores

Experimental City Dealers

Amount of Participation	Increase	No Change	Decrease
None	1		1
At Least Three		2	
Four or More		1	1

N = 6

Control City Dealers

Amount of Participation	Increase	No Change	Decrease
None		1	3
At Least Three	1		1
Four or More			

N = 6

Table 6

Changes in Opinion Leadership and Changes in Participation in Pesticide Education Programs

Experimental County Dealers

Change In Participation	No Change	Decrease	Increase
Increase	1	6	1
Decrease	1	1	1
No Change	1	4	0

N = 16

Control County Dealers

Change In Participation	No Change	Decrease	Increase
Increase	2	5	3
Decrease	3	4	3
No Change	5	3	4

N = 32

Table 7

Changes in Opinion Leadership and Changes in Participation in Pesticide Education Programs

Experimental City Dealers

Change In Participation	No Change	Decrease	Increase
Increase	2	0	0
Decrease	0	0	0
No Change	1	2	1

N = 6

Control City Dealers

Change In Participation	No Change	Decrease	Increase
Increase			
Decrease	1	3	0
No Change		1	1

N = 6

Footnotes

[1]The research reported herein was supported by The Office of Adult Education Research, University of Nebraska and Pesticide Education Program, Cooperative Extension Service, University of Nebraska.

The author wishes to gratefully ackowledge the contributions of Alan Booth.

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